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A MEDIUM FOR THE EXCHANGE OF IDEAS AND
EXPERIENCES BY OPERATING EXECUTIVES
FOR THE BETTERMENT OF THE
SERVICE

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THE FOREST SERVICE OBJECTIVE—AND RESULTS

By L. F. KNEIPP

On February 1, 1905, the Forest Service, as now constituted, came into being. To the new-born but lusty infant a gracious Congress coincidentally remarked, in substance: "Here! Take these 80 million acres of forest reserves and see what you can do with them. They should be managed so that they will contribute to the greatest good of the largest number of people in the long run." Thus originated the first example of systematic large-scale planning of land use in the United States.

The area to be planned was twice the size of New England. In physical character it varied from desert to eternal snows. Within it occurred a wide range of natural resources—timber, forage, water, minerals, wild life, scenic beauty, productive soils, areas controlling transportation, commerce and industry. Dependent upon it was an established and expanding social and industrial structure permeated with conflicting economic interests often mutually incompatible and incapable of reconciliation. Applicable to it was an involved code of public laws frequently inappropriate to the permanent economy of the lands and susceptible to wide abuses and misuse. Applicable, too, were certain traditional attitudes or habits of mind born of a pioneer environment; certain locally prevalent concepts of the relationship between a central government and its citizens in the use of publicly owned natural resources. It was a tough job of planning, and it had no background or foundation of precedent or intellectual recognition of its imperative necessity.

The Forest Service, of course, did not begin with a fullfledged plan of systematic land classification. Rather it met each problem in the order of its priority and urgency. On one area grazing was conflicting with forest growth, hence it was reduced or excluded. On another area cattle were occupying range obviously best suited to sheep, on another sheep were using cow range, so proper transpositions of use were worked out. Certain areas were closed to grazing, in some cases to protect municipal watersheds, in others to provide feed for game. Here and there were tracts which, under the then prevailing economy, seemed most valuable for farm-crop production, and they were listed for entry. Certain bodies of timber were needed to supply the needs of local communities, and they were so dedicated. Others could be made the bases of new lumber industries, and their use was planned accordingly.

These measures constantly were subject to change and refinement. As time wore on, as new scientific facts became available, as new social or economic circumstances arose, readjustments were made. The maintenance or restoration of optimum ecological conditions received increasing attention as a factor determining the most permanent or productive or socially serviceable forms of permanent land use. A sound program of planned land use thus gradually took form, in large measure without conscious understanding of that fact by the men who were carrying the program to fruition. Many a ranger but briefly graduated from the Swinging Ladders cow-outfit, many a junior forester but

recently released from the cloistered confines of a forest school, was a land planner, and a good one, without any real personal appreciation of that fact.

Today, the Forest Service faces, either as a direct responsibility or a co-operative obligation, a job of land-use planning ten times as large as that which originally confronted it. It should, however, be ten times as capable of meeting the job as it was on its first birthday. Its personnel is much greater and better trained, behind it is almost a third of a century of experience based upon effective accomplishment, at its disposal is a constantly expanding field of technical knowledge and basic principles, to which its own membership has made generous contributions. The methodology developed for the solution of the Service problems is that now being adopted by land-planning specialists. The physical facts are now better defined and generally understood. Future social and economic trends have been made more clearly apparent.

There is nothing terrifying in the new era of planned land use the Forest Service is now entering, nothing beyond the limits of its past experience. The only difference is one of proportion. The procedure is relatively simple. The first step is to critically review and analyze the forest lands of the United States, to study their various potentialities for social and economic service, their ecological relationships, the degree of abuse to which they have been subjected, the extent to which they may, by remedial action of practicable character, be restored to optimum production, the conditions under which they can be made to serve two or several different purposes, the one or several different uses through which their highest and/or most permanent utility may be realized. The next step is to review and analyze the social, economic and industrial structure in the light of their apparent future trends, to consider and determine how well or poorly they conform to basic physical conditions, the ways and degrees of modification that seem probable or practical to adapt them to inescapable limitations in the permanent use of lands. Then one set of factors has to be brought into the best possible adjustment with the other, and the result is the best attainable plan of land use. Of course, so far as the individual is concerned, there are many obligations to be met in carrying out such a process. One must broaden his or her mental horizon so that it comprehends the entire problem, must become familiar in at least some measure with the large social, economic and political factors which figure in the equation, must in some degree master the technique and detail which gradually has been evolved to reduce the problem to ponderable dimensions.

It is to those ends that these study courses have been initiated. But no one should be discouraged by their intricacies. After all, the objective is now the same as it was in 1905, namely, to so plan the use of lands that they will be productive of the greatest good of the greatest number in the long run. The Forest Service already has partially attained that objective, and it can and will attain it in full.

SOCIAL OBJECTIVES OF LAND-USE PLANNING

By RAPHAEL ZON

Foresters, long before the present agitation for land-use plans started, were developing broad land policies. The creation of the first national forests, the Weeks Law of 1911, were all attempts in that direction. Today, foresters again may have to show the road to sound land use.

Can there be planning in an economic system in which there are so many conflicting interests? It is claimed that as long as the land is in private ownership any attempt at planned land use will meet with opposition on the part of those whose interests may be curtailed thereby. Even in city zoning, which is the nearest approach to land-use planning in a city, the best plans may often be vitiated by the interests of property owners. Some of the zoning schemes which are good in themselves, and which are the means of putting land-use plans into actual practice, even in such progressive states as Wisconsin, often carry out the desires of the large land holders rather than the ideas of more socially beneficial plans.

In a planned society where production is for use only, it is comparatively easy to determine how much agricultural products are needed by the population and, therefore, how much land should be devoted to agriculture. The needs for forest products may equally be determined and, therefore, the acreage necessary for growing timber definitely allocated. Similarly, all other needs for land can be determined, and since all land would be under public ownership, there should be no difficulty in allocating it for the different purposes. Still, admitting some of the disadvantages of putting planned land use into effect under our economic system, there certainly are many glaring abuses in the present land use which can be corrected by carefully-thought-out plans. We cannot have an ideal plan for land use, and the most that we can do is attain a certain compromise between the relative needs of land for various purposes and try to attain this land use either through zoning; Federal, State, and County purchases of land for this or that purpose; and to a smaller extent through education. In the field of forestry, particularly on land distinctly of non-agricultural character, public agencies can acquire this land either by direct purchase or by the tax-delinquency route, and dedicate it to forest uses in the broadest sense. When it comes to land of agricultural character this task is not so simple, because the hopes of many smaller communities for agricultural growth is still very strong, and there is a resistance to giving up land of uncertain agricultural value, even in the face of present trends, for other purposes. The same is true in the case of water-power sites, or other land which promises profits to the owners, irrespective of whether it fits into the general plan of land use or not. The road, therefore, to put into effect planned land use is beset with many difficulties. Recently, however, the Federal Government, through its large acquisition program, is doing a great deal toward a more permanent balanced land use.

The social objectives of a planned land use have been admirably set forth by the Forester. First, a planned use of land must tend to such use that does

not destroy its inherent potential wealth. In the case of forests, this, of course, means that the land should be used in a manner that does not lead to a depletion of the resources. In the case of agricultural land it again means such use which does not lead to the depletion of its fertility or to make it a menace to our streams and animal life through soil washing and silting.

The second objective is to make the use of the land a source of permanent employment to the largest number of people, a source of employment that would guarantee them economic security and a decent standard of living. Devoting land, for instance, to mere timber growing is a worthwhile objective, but unless it is intimately tied up with the permanency of existing local communities its benefits are too far distant. To make it even more specific, to reclaim, say, several hundred thousand acres of devastated land through planting is dedicating the land to permanent use. If, however, this land lies in fairly inaccessible places, far removed from centers of population, it will have no immediate effect on many stranded communities who lost their chief source of livelihood through destruction of forests or mines or some other natural resources. If, on the other hand, through public purchase of merchantable forests, it is possible to establish immediately a self-sustaining unit near a sawmill town the benefits will be immediate.

Another objective of planned land use is to provide opportunities on land for urban populations which are being crowded out from industry through technological improvement. There was a time when the land and the land resources maintained the bulk of our population. With the development of industry on the one hand and the depletion of our natural resources on the other, an increasingly larger number of people concentrated in the cities and became dependent upon industry for a livelihood. While, to be sure, industry has not reached its limit of possible expansion, the present tendency for all countries to become more or less self-sufficient curtailed our foreign markets. This, together with the remarkable progress in scientific and technical processes, reduced the number of people who can be profitably employed in industry, creating a large army of unemployed. During the present economic crisis the army of unemployed is abnormally great, but even with the return of prosperity some 4,000,000 people, it is estimated, can no longer be absorbed in industry. Our land resources are still tremendous reservoirs which can be made, with proper planning, to afford opportunities of security and livelihood. The subsistence homesteads movement is an expression of this policy, and is closely tied up with planned land use.

We have more agricultural land than can possibly be used in the immediate future; we have more forest land than can be dedicated to forestry. There is more recreational area than can be filled with recreationists, and so on. We have, therefore, a vast area from which to choose in making our plans, and since the pressure for finding opportunities for large numbers of people on land is great we should first devote our attention to those land resources which can afford this opportunity in the nearest possible future. Our planning of land use must begin with the land, first of all close to the communities which are economically stranded, and then to those lands which are farther removed.

LAND-USE PLANNING IN ACQUISITION

By S. H. MARSH

Every forest officer has in his mind as an ideal the bright picture of a stately forest, operated on a sustained-yield basis, surrounded by permanent wood-using industries. Within easy reach of the plants will be the small farm homes of the workers. There will be farming communities scattered through and adjacent to the forest. The lands suitable for agriculture will be devoted to such use. The owners will spend the summer in farming and the winter months to work in the woods. There will be good roads that will make it possible to live on the farm and to work at the plants or in the woods, even though the operations may be some miles away.

How different from the ideal is the average, newly designated Purchase Unit or recently established National Forest. It too often supports only a wrecked stand, with abandoned mills, a stranded population of woods and mill workers, and scattered submarginal farms. To change this desolate picture to conform with the ideal is the job of the Forest Service, and this change must be initiated by Acquisition.

Most of the Forest Supervisors, in the eastern Regions at least, have been in the land-use planning game to a greater or lesser degree since National Forests were established. This work has been handled in the regular course of business, and under different names, or without benefit of a name. When a Forest Supervisor bought out the mountaineer at the head of the hollow, then helped him to locate and negotiate for a new farm down in the settlements, he was delving into the realm of land-use planning. Most of the Supervisors are partially responsible for, or have contributed to the stabilization of communities within and adjacent to the forest, which are dependent for much of their cash income upon National Forest resources and the labor which the National Forests furnish. Where timber is available establishment of wood-using industries has been encouraged. These activities, carried a step further to include the classification and acquisition of more of this poor farm land and the preparation of practical plans of resettlement for those whose lands are to be acquired, built around permanent wood-using industries if possible, is my conception of the role of the Forest Service in land-use planning. These are important steps in the realization of the ideal.

We can work out in a short time definite and detailed plans by forests which will be available as the nuclei of regional and nation-wide plans: by segregating and correlating all the activities which have evolved from what we early considered proper forest management and administration; by formulating such additional plans as the present emergency indicates to be necessary; by giving force and direction by reducing them to definite and concrete jobs to be assigned to the various staff members; and by assigning them appropriate priority among the other numerous activities such as has been done, for example, in fire control in past years.

The limited appropriations of the past have made it necessary to choose

whether large quantities of cheap, or smaller quantities of high-priced lands should be acquired. The wise decision was made to buy the cheap land first. Purchases have therefore been confined in the main to cutover woodland. Recent purchases have included some lands with heavy stands of merchantable timber. It is very desirable that more forested land be acquired as it becomes available at reasonable prices. This is the back log of the forest industries that will be needed to help develop the forest. Also, more of the submarginal farm land scattered through the forest should be purchased, and along with it sufficient good farm land to provide homes for those who desire to move from the poor, wornout lands.

I am not one of those who believe that the inhabitants of Dark Hollow up in the mountains or of Hell's Halfacre out in the piney woods can be moved bodily and forthwith from their, as we think, squalid surroundings to a place we consider more desirable. There are, on the forest, as elsewhere, all kinds of people whose problems demand careful consideration. There is the man in the head of the hollow who lives there because he will have none of the social advantages the "settlements" have to offer and who cannot be tempted by the bait of remunerative employment to come down, since employment, remunerative or otherwise, is downright obnoxious to him. There are others who would welcome the opportunity to better their condition if convinced the sale of their land would bring this about. Some have been marooned who have trades or the natural ability to take care of themselves on the small capital that might be realized from the proceeds of the sale of their properties. In some localities a floating element will be found. When disposed of in one hollow it may turn up in the next.

It must be remembered, too, that in addition to being the occupants of poor or submarginal farm lands, many of these people are submarginal farmers, and that the mere act of giving them greater opportunities does not necessarily mean that they will be able to take full advantage of them forthwith. There may be some temperamentally unsuited to move from a secluded, solitary location to a place where they are expected to become cogs in a more complicated social structure. To move them may introduce an even more difficult economic and social problem than the one we are proposing to remedy. Many cases can and should be handled in place where soil and living conditions are favorable and roads make schools and churches accessible.

It is the duty of the officer in charge of acquisition to cope effectively with each of the above situations, and probably many others, with the minimum of disturbance. His solution of the various problems will often fall far short of the ideal. He has been furnished many tools with which to work; others will be required, and will be provided as the need for them develops.

Full advantage has not been taken of some of the opportunities we have or that might be made. There are comparatively few transactions providing for a life tenure by the vendor. Few experiments in zoning have been initiated outside the Lake States. A fuller appreciation is desirable of the value of zoning in improving the social and economic status of the poor-land farmer.

The effect on the financial status of the town, county, or other unit of government, and as a tool in the acquisition and consolidation of the forest, should be carefully considered.

There are areas on some forests so densely populated that the people living thereon cannot be handled by methods now provided for, and where the purchase of submarginal farm land needed to consolidate the forest is practically at a standstill. Usually the land being farmed is steep and rough. The effects of erosion compel abandonment after a few years of cultivation, when other areas equally steep and rough are cleared up. Under these conditions the usual practices will not suffice. The proceeds from the sale of the poor, worn-out farms will not enable the owners to buy better land elsewhere on which they can make a comfortable living, and an answer to the very material question, "Where will we go if we sell?" must be provided. In such cases it will be necessary to reverse the usual procedure and provide a place to go. To break this jam, the purchase of some good farm land at the mouth of the hollow, which will provide a landing place, must be made. When this is done, a gradual shift down the hollow can begin. Upon entering upon the field of submarginal farm land purchases several questions that naturally arise are:

- (1) How will homes be provided for those who move to the better land acquired for resettlement purposes?
- (2) Should those who move be required to buy these better farms or should they be permitted to lease them?
- (3) What action will be taken to see that the better farms do not deteriorate and become submarginal by poor farming?
- (4) Where will funds be secured from year to year on which to live?
- (5) Shall the value of the improvements, which are of no value to the United States, but which represent a very considerable part of the value of the property in the eyes of the landowner, be recognized?

Homes must be provided for some of those moving to resettlement areas within or adjacent to the forest, just as they are provided for in the case of other emergency projects, *i. e.*, at Government expense. Those who remove to resettlement lands should not be required to purchase, nor should they be permitted to do so, unless and until they have become established and have demonstrated their ability to handle the transaction and function as members of the community. Leases can be handled under Special Use regulations.

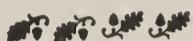
It will probably be necessary to have attached to the staff of the Forest Supervisor a man with training and experience in handling social and agricultural problems.

Employment on the forest will be furnished these farmers, as is being done in many cases in their present environment. As wood-using industries are developed more work will become available. In the initial stages of the development of the resettlement areas much employment will be available in the construction of homes and other improvements.

The value of buildings and other improvements on these poor farm lands must be recognized and provided for in appraisals. The schedule of agricultural

land values will need to be adjusted in some cases. A limited market exists even for submarginal farm land, and appraisals must reflect the generally recognized values of these properties as homes.

I have attempted to outline very briefly my ideas regarding the solution of some of the problems encountered in acquisition work. Particularly is the human problem an involved one. It will have to be worked out hollow by hollow, and family by family. The people cannot be moved out en masse. We may as well face that fact and settle down to the long pull, even though we may be ever so impatient to get the job completed.



LAND-USE PLANS—OLD AND NEW

By M. M. CHENEY

It is a matter of wonder, as well as satisfaction, to watch the increasing interest in land-use planning. Three or four years ago, at the outside, the writer, discussing possibilities along this line with the president of one of our universities, reached the conclusion that land-use planning on a state-wide basis, such as was even then under way in the more highly organized states, was not in the immediate picture for most of the western states. With the endorsement of Governor Dick Dillon, an attempt was made in New Mexico to prepare a state-wide recreation plan involving lands of all ownerships and forms of management, but nothing of value resulted at that time. With the impetus given to planning by Federal agencies has come what may be called a renaissance. Recently one of the leading attorneys of New Mexico asked, "What is this land-use planning all about, and what does it mean?" Less than a month passed by and the same person speaking said, "I think this land-use planning is of great importance, and is an opportunity that the State must not neglect." When our State Planning Boards held their first few meetings, many of the members were in the position of wondering "what it was all about," but as the field gradually presents itself, with the gathering and correlation of information from all the available sources, it is interesting to note the increasing enthusiasm and the recognition on the part of the Board itself of the functions to be performed and the need for information, for study and planning for all the interlocking state activities involving land tenure, land management, land use, and preservation or conservation with use of all the values which find their basis in the land itself.

It is indeed a renaissance, and renaissance is the correct word, because there is nothing new in land-use planning, except perhaps in methods and the skill in application of its methods. On June 17, 1902, the Federal Reclamation Act was passed, and the work of the engineers of the Reclamation Service at that time was a real accomplishment in land-use planning; in locating projects, in working out the engineering features for storage and distribution of water, and in survey of the areas to be served, determination of size of areas for individual holding and adjustments of land tenure in connection therewith. Mistakes were made, and the Reclamation Service has learned by experience and

continued to improve its plans, but it must be recognized that the job was one of land-use planning.

Today we hear in the Forest Service of the need for master plans and the getting away from mere project or resource plans. My memory goes back to earlier days in the Service when plans were very much in order, and back in the closed files I find a set of books, one for each Forest, prepared in 1912 and 1913, never completed, but undertaken at that early date as master plans, and dealing with such subjects as land tenure, physical features, transportation, population, industries, occupancy, protection, with plans for improvement and various forms of use. Like the plans of today, they started with inventories, with analyses of facts, statements of problems, and what for that time was undoubtedly advanced thought and real vision in solving the problems of the future.

In the Coconino Forest Plan I find, "It is possible to ride on horseback to within 100 feet of any place within the Forest without any serious difficulty, and during dry weather it is possible to go in a buggy or light rig to within two miles of almost any point inside of the Forest." The man who wrote that did not visualize aeroplane landing fields or automobile highways, but he was looking into the future toward what we might now call "hour control."

We think of recreation on the National Forests as an altogether new activity, but over twenty years ago, in the very infancy of Forest Service planning, I find that the Oak Creek area, since classified as chiefly valuable for recreation, was even then being protected on the basis that it would "serve a far greater use to the public in the future if saved for recreation and camping purposes," and it was stated that applications for Forest homesteads should not be received in Walnut Canyon (an area of archaeological ruins), the San Francisco Mountains, Oak Creek or Sycamore Canyon, and the southwestern part of the Forest under the rim. So that in 1935, in the report being prepared for a primitive area, we are just carrying out the forethought of the man who wrote the land-use plan in 1912. The point is that land-use planning is not new, but has been going on in the Forest Service consistently from the very beginning in the form of fire control plans, timber management plans, range management plans, and so on. We now have a mass of material and years of experience, new methods, and are in a position to draw all these plans together with the co-operation and assistance of State Planning Boards and other interested agencies into master plans which will be more or less complete for the time being, but which twenty years from now will be as out of date as the "buggy and light rig" plans of 1912 are today.

REVIEWS

The following reviews were selected for their inclusion of the objectives which have and still are activating a few of our principal land-use planning movements:

National Policies Affecting Land Problems: Prepared by Dr. L. C. Gray, Bureau of Agricultural Economics, as a syllabus for Round Table discussion at the American Country Life Conference, Blacksburg, Virginia, August 1 and 2, 1933.

The object of this round table was the preparation of a report on our national policies affecting land problems.

Land is an essential basis of national welfare, and it is, therefore, proper to conceive the desirability of ultimately considering the use of every acre of land in the United States, whether privately or publicly owned, in its bearing on the general welfare and in relation to the broad economic and social objectives of the nation. Land-use planning is but a segment of the circle of socio-economic planning. Rural land planning may be conceived as something broader than land-use planning, involving consideration of institutional and fiscal arrangements, local governmental organization, the location of highways, reservoirs, parks, and other utilities; and above all, the adequate consideration of the interrelationship of these various elements in the land-use pattern.

Among the objectives to be aimed at in land-use and rural planning are the following:

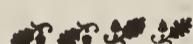
- (1) Prevention of the wastage of soil, timber, etc., and the wise development and use of such resources.
- (2) Elimination of the use for farming of submarginal land and discouragement of the settlement of such land.
- (3) Adjustment of the agricultural plan to available demand.
- (4) Diversion of land not needed for agriculture to those uses for which it is best adapted.
- (5) Reclamation of super-marginal agricultural land when economically justified and promotion of its effective use.
- (6) Promotion of desirable readjustments in agriculture on super-marginal land, especially with reference to size and tenure of land holdings and type of farm organization.
- (7) Encouraging a more desirable distribution of population from the standpoint of making possible the economical provision of public utilities and governmental services, while making available a higher standard of living to a larger proportion of the population.
- (8) Prevention of premature subdivision of land in the environs of cities in ways militating against its logical use and occupancy.
- (9) Provision of adequate parks and other recreational facilities.
- (10) Preservation and enhancement of the aesthetic values of the landscape.

- (11) Provision of a safe and healthful physical environment.
- (12) Provision of adequate water, drainage, and sewerage systems.
- (13) Control of the flow of and use of streams so as to minimize their destructive effects and promote their most effective use for power, irrigation, transportation, and industrial and human consumption.
- (14) Promotion of a wise distribution of power.
- (15) Promotion of an adequate system of transportation and communication.
- (16) Integration of agricultural and industrial employment, and, when desirable, the relocalization of industry.
- (17) Indication of suitable sites for new industrial, urban, and suburban developments and locations for rural centers.
- (18) Coordination of all elements of planning.

Not all of the above objectives are important in every part of the country. Some are of particular importance in certain sparsely settled regions; others in the vicinity of large cities, and still others in forest areas or in areas where topography, soil, and rainfall peculiarly favor soil wastage through erosion. In particular areas circumstances may require primary consideration of a single phase of land planning, such as the location of public forests, parks, or roads, without reference to other phases. However, as rapidly as possible we should seek to realize the objective of comprehensive rural land planning in which the important interrelated objectives are included.

The geographic unit of planning will necessarily vary according to the elements to be emphasized and the intensity of planning contemplated. A river valley system, a natural physiographic region, or a political entity may constitute the desirable unit for planning organization and activity. Land classification is an essential element in land planning; distinction should be drawn between physical and economic and private and public welfare classifications.

Land-use plans may be given effect through public acquisition, subsidies, zoning, State grants-in-aid, and taxation. In effectuating these plans mutual responsibility must be recognized between the States and the Federal Government. Certain types of adjustment affecting land use are in the sphere of State or local action, such as taxation, land tenure, regulation of land sales, zoning, etc. Certain activities are exercised by both agencies. Planning machinery is necessary to insure collaboration of the numerous technical and administrative agencies.



Regional Planning in the Pacific Northwest: By Marshall N. Dana, Chairman, Pacific Northwest Regional Planning Commission, Portland, Oregon. Reported in the American Civic Annual for 1934.

The Pacific Northwest Regional Planning Commission was set up at the instance of the National Planning Board as a part of the program of the Federal Emergency Administration of Public Works. This commission, composed of the chairmen or other representatives of the State Planning Boards of

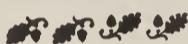
Washington, Oregon, Idaho, and Montana, was organized to develop a regional plan, with four main objectives:

1. Developed economy of the Pacific Northwest integrated with national interests, including immediate relief of unemployment.
2. Effective plans toward profitable use of public works project.
3. Establishment of long-range social and economic values.
4. Widened human opportunities for this and succeeding generations.

We have a human program. We seek a nobler and finer pattern of life for every person.

The original aboriginal inhabitants of the Northwest were representative types of adherents of the doctrine of *laissez faire*, and although the present opportunities and potentialities then existed, they lived in squalor and poverty. Today, planning is emphasized and rendered timely by the clear need to provide for the planned uses of projects to serve future requirements of communities.

Advisory-technical committees, composed of experts in various fields of planning activity, have been formed to assist the State boards; over seventy cities and counties of the Pacific Northwest have organized planning commissions. Regional conferences are being held to organize research, fact-finding, and other basic work under eight topics: (1) Land Resources, including Agriculture, Forests, etc.; (2) Mineral Resources; (3) Water Resources, including Power; (4) Industry and Commerce; (5) Transportation: Railway, Highway, Waterway, and Airway; (6) Utilities, including Power, Light, Heat, Refrigeration, Communications, Sanitary Services, etc.; (7) Communities, including Towns, Cities, and Metropolitan Districts; and (8) Welfare and Instruction.



Aims of the Tennessee Valley Authority: By Arthur E. Morgan, Chairman, Board of Directors, Tennessee Valley Authority, before American Society of Landscape Architects, Washington, D. C., January 29, 1934. Published *Landscape Architecture*, April, 1934.

It has been the wish of the President to use this undertaking to some extent as a laboratory in social and economic life, a place where we may bring order out of chaos. We know that the situation is not at all simple. We have been trying to look over the scene and see what it is that demands design and plan:

The enlargement of the power resources will be partly for greater industry, partly for domestic use. An integrating system in the Tennessee Valley is essential. There must be unified control of water resources, to produce power, to prevent floods.

The road-system design must be fitted to the reservoir design. Eventually, in the development of water resources, a large number of reservoirs will be required, and the plans for these must be considered by the States and communities before investing heavily in roads of short life.

Another problem is that of soil renewal. Soil erosion is wiping out civilization, and we have a clear-cut course: It must be checked. Our system of agriculture must be changed; reforestation is of great importance, but, of course, it can be planned only in relation to other uses of the area.

The political organization of the counties is now obsolete. Our modern travel has eliminated the necessity for small counties.

There is the matter of real estate subdivision, which requires control to prevent a repetition of the exploitations of the past.

There is the element of education and vocational adaptation. There are new opportunities not being realized.

Then there is the element of the whole balance of social and industrial life. The people are pressed for a way to live, owing to the surplus of rural population. If we can bring in little industries, and get people to produce what they consume, and unite agriculture and industry, we may better the living conditions of most of the area.

We are beginning with the design of a water-control system, with flood control, with forestry, balancing of agriculture and industry, prevention of land exploitation, and vocational reorganization. Any one of these jobs takes us into all the others. We find ourselves thus working out a philosophy of social organization. We must be living for the future as well as for today. The place to begin is not with some complete predetermined design, but right where we are. If we can get the habit of beginning where we are and then proceed with intelligent honesty toward everyone, we have a good way to start out in any social and economic planning. If we can see all these problems in good proportion, and not give all our attention to one while the rest are forgotten, we shall be making our best contribution to the increase of human satisfaction.

SUGGESTIONS FOR DISCUSSION

First, I want to say that we are indebted for this number to Mr. Ineson. He has written the reviews, and has gotten the other material together and arranged it for publication. And by the way, this is the first time in over two years that we have had more discussion in than we could publish.

Ineson's work leaves nothing for me to do but make these suggestions, and nothing else in our last number received so much criticism as my suggestions. But why? Most of you didn't follow them anyhow. And that's all right, too. Go ahead and use your own ideas. There is no intent to restrict you to the subjects suggested.

In our outline we suggested that this number be devoted to objectives. I have read a lot about objectives, but most of it doesn't mean anything to me—just words. In the Forest Service we have always emphasized objectives and tried to localize them and give them meaning. Of course, we have our big generalities, like "the greatest good, etc." We still stand by that one, and lately

we have heard it repeated many times. But for action we have always been more specific. In our old land classification job, for example, we had "chiefly valuable for agriculture" and "farm unit" as guides as to what would produce the "greatest good."

Lately we have had a new version of our broad objective which reads something like this: "Making forest land contribute its fair share to the permanent support of the nation's population." That, I presume, means the same as the "greatest good," but changes the emphasis to meet the new situation. However, before we express that in action, it seems to me that it still needs further interpretation, and possibly a number of different interpretations to meet different situations. So there are two big questions that bother me a lot, and that I would like to hear discussed. Possibly others would also, so I'm suggesting them:

1. What is your working objective, the things you are trying to accomplish through planning in your particular situation? What are the problems you must meet, and how will you meet them? For example, how do you express locally the idea of supporting a share of the nation's population, and how do you determine the share?
2. Throughout all this big planning movement is there some common objective that will tend to unify and correlate the movement and prevent major conflicts and cross-purposes in the things being done?

Of course there will be minor conflicts and seeming conflicts and mixups of various kinds. This cannot be helped, with so many in on it. There are the professional writers and the experts who want to confuse and mystify. Then there are the direct actionists, who want to cut out the talk and do things. Also there are a lot of independent agencies with authority to plan within certain fields. Some of these are:

The AAA, who are actually changing the use on millions of acres; the Lumber Code Authority, that attempts to influence the use of private forest land; the State Zoning agencies and the Soil Erosion Service, that also work with private land; then there are the agencies, such as the Forest Service, the Biological Survey, the various States, the submarginal land division of the AAA, that change land use through a change of ownership. There are many other government agencies, and, of course, the private owners are planning, both individually and collectively. One's first impression is that it's an awful jumble, but back of it all there must be some unity of purpose that will carry the whole movement somewhere. What is it?

Please send in your discussion within ten days after you get this. I would set a definite date if I knew the date of publication. And send your paper direct to me. Send a copy to the R. O. if you like, but the Forester prefers that your unreviewed opinion be sent here. Copies of the lessons go to each Supervisor, and to others on request. Whether requests must be approved by the R. O. is a Regional matter. Send requests for additional numbers to Frank Haynie, Supply Depot, Government Island, Oakland, Calif.—P. K.

DISCUSSIONS OF LESSON 30

IRA T. YARNALL

REGIONAL OFFICE

WASHINGTON, D. C.

This Region is vitally interested in Forest Service participation and leadership in the nation-wide Land-Use Planning project. I believe this project is of special value in obtaining the best planning for, and the best handling of, the resources of our National Forests and the correlation of such resources with the resources of adjacent areas, so that they may be developed harmoniously in the manner which will obtain maximum future value of the resources for the benefit of the public.

I was very glad to learn that Land-Use Planning was to be the subject of Mr. Keplinger's study course this winter, but somewhat disappointed in the publication of January 10, particularly with the outline on page three of that issue. I realize that the lack of experience and information on the application of Land-Use Planning to National Forests and adjacent areas does not permit being as specific as you would like to be in the articles and comments on this subject, yet the outline appeared to indicate that the subject would be dealt with in terms of generalities in such a way as to add to our general store of knowledge with a minimum of information for practical application. I particularly fear that dealing in such generalities will stifle and discourage comments from any Forest Officers interested in this subject. The suggested questions on pages 17 and 18 appear unfortunate, and to my mind would tend to discourage rather than encourage comments of value. The article by Mr. Ineson is well worth while as an introductory statement, but it is suggested that later articles be planned so that they may educate the reader as to the use and value of Land-Use Planning with special reference to his District, Forest and/or Regional problems and development plans.

Criticism is usually useless unless constructive comments are added. My suggestions are as follows:

Bring into this winter's articles more definite information of local interest. Every Forest Officer is interested in learning what has and is being accomplished in Land-Use Planning in other Regions. Why not have a brief summary as to what each Region has done to date, and is planning to do in the future, in the handling of the development of its areas through Land-Use Planning? The average Forest Officer is anxious to know how Land-Use Planning may be correlated with timber, grazing, recreational and other resource plans on his District or Forest. Why not present this subject for discussion by and suggestions from the field? Most Forest Officers are anxious to know what data should be obtained for a Land-Use Plan, and whether or not he can take action on the matter, or whether he should wait for an "expert" to take action. Why not open this question to discussion and have the field men's opinion as to the need of a Regional or Forest Land-Use Plan expert to initiate the work to be done locally? The average Forest Officer wishes to know what the "brass collars" think as to the future of Land-Use Planning in the Forest Service, and are especially interested as to what part, in the opinion of those

most familiar with the Land-Use Planning project, it may play in the best development of his District, Forest, or Region.

Comments on what part the field men think Land-Use Planning may and should take to aid in the development of their respective areas may be valuable for all concerned. It is suggested that the questions asked with each issue be formulated with the viewpoint in mind that they may be of interest to the Field Administration, and an aid in solving practical problems in each District, Forest and/or Region, although in suggesting this I realize full well that the answer to many questions concerning this project are necessarily in a nebulous condition at the present time. In the bulletins this winter I urge that we make every effort to take Land-Use Planning from the hazy clouds where, in the minds of many, it now floats and place it in as concrete form as possible so that it may be considered an instrument each Forest Officer should be familiar with and make use of in the development of his particular area.

H. L. BORDEN

HOLY CROSS

GLENWOOD SPRINGS, COLO.

"Land of the Free and Home of the Brave"

Free to say what you think (within reasonable limits), and brave enough to say it.

Webster would doubtless turn over in his grave if he could hear the "words" that are being bandied about during this "new deal" era. Words that are claiming the attention of the entire United States, if not the world in general.

Living in one restricted section of the United States for over 20 years, with now and then a brief glimpse into the outside world, and with your own immediate problems absorbing you, it is difficult to, as it were, judge a whole band of sheep by having seen but one of them. The only assistance under such circumstances is to read everything there is on the subject and talk with those who claim to know more than you do. I have done that in part only. I am not going to try to set forth a plan for the nation as a whole on Land-Use Planning, but just attempt to interpret it as it affects the Western Slope of Colorado.

In all this excitement over Land-Use Planning I am reminded of the "fire" built under us over work plans about seven or eight years ago. You don't hear much about them now, and I sometimes wonder if, when good times arrive again and Uncle Sam settles down and lets private business furnish the money to run the nation, and stops distributing billions to provide employment and give the necessary impetus to Land-Use Planning in the form of subsistence Homestead Units, the Tennessee Valley Authority, the A. A. A., etc., we will start off on another entirely new and interesting trip of exploration. I hope not, for I really believe that Land-Use Planning, if properly worked out, will constitute the greatest advance in the proper correlation of the nation's activities so far advanced by modern civilization.

Land-Use Planning is not really new. It's the name that is new. "Kep," I

believe it was, who said that so far probably the A. A. A. has made more progress along this line than any other body or department.

Many years ago I remember listening to these so-called "soap-box orators" advance the scheme of limiting crop production, at that time through organization rather than by the government. I have often wondered myself if there wasn't some way to stabilize prices and get away from the overproduction of one crop and the underproduction of another. My thought in the matter, however, was through organization of the farmers and livestock men rather than government control.

The above is probably aside from the point, but I had to have some kind of an introduction.

How, then, can Land-Use Planning be applied to the Western Slope of Colorado, which is in reality a little empire of its own and larger than some of our eastern states?

We have timber, water, grazing, stock, recreation, fish, game; in fact, a large variety of wild life, very little industry, but a great many people dependent on this western slope, and the world to draw from for recreation.

We have nine national forests surrounded with private and public lands, where valleys and hills are settled with people, many of whom are dependent in whole or in part on these national forests, and many more who would like to be.

Within these forests, and adjoining them for distances up to six miles or possibly more, we find patented and public lands unsuited to their present use and which should be a part of the national forests.

Our timber business is relatively small, and restricted to local needs. This need fails to absorb but a small percentage of the annual growth, and, due to inaccessibility, lack of demand and freight rate, will probably continue to be for some time to come.

We have recreation unparalleled going to waste because of lack of suitable roads, proper improvements and the necessary publicity. We have wild life with no proper plan of development, and insufficient range to care for the demands of those near by.

Our land-use planning program then should, first of all, start with the acquisition of those lands which we foolishly parted with in the early days, restrict our land exchange to exchanges, not land for land, but to that of acquiring land for timber or a cash consideration, to a state law permitting the counties to own land (land which we can then trade them out of direct), the acquisition of patented lands within and adjoining the forest (many of which were patented prior to the creation of the forests, and which are more valuable for the growth of trees, grazing and recreation than they are for the production of crops).

This forest area should be made accessible by good roads, proper recreational improvements constructed, and the entire area planned out for the

greatest good to the greatest number.

With this plan must come the authority to make the right decision stand. We cannot afford to be influenced by any one class of users to the detriment of another class. Unless we have a more or less free hand the structure will fall of its own weight.

If properly planned and handled, I can see untold prosperity to those who live in the Western Slope empire, and the forests will contribute their share to this prosperity.

GEORGE E. GRIFFITH

REGIONAL OFFICE

PORLAND, OREGON

Keplinger's third topic for discussion, in the lesson of January 10, opens up a subject which I believe merits immediate attention and action on the part of Forest Officers. It lies within the field of Public Relations, and gives promise of important PR results.

Much of our PR effort of the past has been aimed at the "general public," and has been built around generalities. I would not decry this effort, for it has produced valuable results. The time now has come, however, for more definite analysis of concrete, localized problems, and the sharp focusing of PR to meet these problems.

This relates directly to the subject of land-use planning and the questions raised in Keplinger's topics. Briefly, I think that the zone-of-influence of every Ranger District and every Forest should be surveyed and analyzed definitely and concretely along economic and sociological lines. The point of aim should be particularly at the relationship of the Forest unit and its resources to the economic and social well being of the people living within the zone-of-influence.

To illustrate: Certain ranger districts of the Umatilla Forest protect the headwaters of streams which mean life itself to the people living in the Hermiston irrigation district, fifty-odd miles to the west. Yet perhaps neither the Rangers nor the people in the irrigation district have thought much about this relationship. Certainly it never has been reduced, by survey and analysis, to definite, understandable terms.

Or again: Take any eastern Oregon Forest. What is the relationship, in terms of acreage and production, between the National Forest grazing ranges, the intermediate privately owned pasture lands, and the home ranches in the valley? Are they in the best possible balance, or is some shift in cropping and farm husbandry or range management indicated? Has the game resource been properly considered and provided for in terms of human use? Are our forest protection methods producing the maximum of soil crops for the welfare of the region, or are we producing forest stands of doubtful value at the expense of more valuable forage for game and domestic stock? In other words, is the picture in focus, considering the special and economic needs of the related territory?

On the Olympic peninsula there is a great deal of ballyhoo for the crea-

tion and enlargement of a National Park. What effect would this have on the future stability of life for the people of the Peninsula and dependent towns? What percentage of the population is dependent on the timber industries, directly and indirectly? Would the withdrawal of timber resources for Park purposes, with its benefits of national advertising and the attraction of wealthy tourists, compensate for the loss of forest industrial resources? Where does the sportsman fit into this proposed picture? Are his interests affected favorably or adversely? How many sportsmen are there, in terms of fishing and hunting licenses issued, and the annual take or kill?

These examples could be multiplied indefinitely, but I have indicated the trend and the possibilities. In other words, a local economic and social planning survey and analysis within the local zone-of-influence would indicate concretely just what the forest resources of forage, timber, recreation, wild life, and watershed protection mean in terms of use to the people who use them. A correlation of local analyses would give the Regional picture.

The values of such a project are readily apparent. Local forest management plans would take on a new vitality. Forest officers would have a deeper appreciation of the importance of their unit in terms of human values. PR problem spots could be foreseen and avoided or softened. Controversies based on misinformation could be dealt with authoritatively, and a valuable mass of PR information would be produced to give vivid effectiveness to personal contacts, local talks, and press material.

LEON C. HURTT

MISSOULA, MONTANA

NORTHERN ROCKY MOUNTAIN EXPERIMENT STATION

Perhaps there was some unnecessary inertia on the part of the Forest Service in failing to more promptly capitalize on and take advantage of the change in public sentiment favorable to a sounder social and economic basis for land-settlement policies that set in ten years or more ago. There may be some slight comfort in the thought that other institutions that knew better were more laggard in this respect than the Forest Service.

The social and economic viewpoint was not ignored in early settlement policies, it was warped and unsupported by facts. Two of the major deficiencies in settlement policies were isolation of the land and inadequate units. The pattern of 160-acre units was blindly carried from the humid, rich soils to arid soils of the west with the unsupported hope that such a limited area would provide a good family living. This hope failed of realization, as a little well-conceived research might have proved.

It was also assumed, at least by some, that isolation from schools, roads, markets and other advantages was merely a temporary condition, as it proved to be in the Middle West. Lack of information on these two points explains many of the decayed communities and deserted homesteads of today. A satisfactory social setup cannot be built without a sound economic basis. The small ranch that provides barely enough food and clothing for existence can never be

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a satisfactory economic or social unit. It is hoped that future land-use policies will be sensible enough to recognize and provide resources sufficient for a satisfactory unit. If we do that, many social problems will be greatly simplified. We may have to beware of the subsistence homestead in this connection.

The old prescription, greatest good to the largest number in the long run, is still serviceable if intelligently used. Too often the third ingredient, the "long run," has been entirely overlooked. The next generation should not be overlooked. We overlook it when we force soil impoverishment through erosion and lack of maintenance, due to attempting a living on an inadequate acreage. We do it when we unduly restrict the size of grazing permits.

The "largest number" ingredient of the prescription should also be intelligently handled. I am not satisfied to accept two hunters who spend one day hunting as a greater number in this prescription than one rancher who spends 365 days on the land and makes a good living. There is danger of such an interpretation.

E. S. KEITHLEY

PIKE

COLORADO SPRINGS, COLO.

The opportunities for land-use planning are great and the need urgent within and adjacent to the Pike Forest. Land abuse has been of perhaps longer duration around and inside this Forest than most any other part of the State of Colorado. This is attributed to the earlier settlement of the front range country resulting from the discovery of gold here in 1859.

Abusive use of private lands inside and adjacent to the Forest is a detriment to forest land and destroys or injures public values thereon. Further, abusive uses on our higher mountainous areas, whether private or public land, are extremely injurious to irrigation and municipal water supplies far removed from such mountainous areas.

Some examples of such injuries sustained by a larger group of people or municipality are well illustrated on the Pike. The water from the Forest areas supplies 85 per cent of the needs of 400,000 people. More than \$25,000,000 is

It would appear, without further reason, that the welfare of these 400,000 invested in municipal waterworks and distribution lines serving these people. people dictates that uses of lands within the watershed by a comparatively few people should be so controlled and restricted as to protect this water supply. Within and adjacent to the Forest and on these watershed areas at elevations of 8,000 to 10,000 feet water is being used for irrigation purposes. Its value for such purposes is small in comparison to its value for municipal use and irrigation at lower elevations with longer growing seasons.

Again, erosion resulting from cultivated and overgrazed lands on one small watershed by about 50 families has seriously impaired public fishing values on 15 miles of fishing waters below, used probably by 50,000 to 100,000 fishermen. Under a land-use plan properly conceived and executed these conditions would be corrected.

Private as well as public lands would have to be controlled by a single plan. To meet such situations zones will have to be established and a land-use

plan based on such zones will have to be adhered to by all. Water and soil values being the most essential factors leads me to believe that these zones should be bounded by the larger and more important watershed areas. Another thought is that, after all, the primary purpose of a land-use plan being the welfare of society, these plans might best conform to our political or governmental units, that is, City, County, State, and Federal. The human side of land-use planning, as we might expect, is the most difficult part of land-use planning, and hence the zone ought to coincide, it seems, with a governmental unit or that unit made to conform to watershed areas.

Land-use planning smacks "rugged individualism" squarely in the face. My limited experience in preparing preliminary reports on these submarginal land projects under the Land Policy Section of the A. A. A. and efforts with a local project manager of the Land Policy Section has convinced me of the truth in the old saying, "your necessity is my opportunity." On all projects with which I have thus far been associated it has been a matter promoted as a public necessity and the individual has put inflated values on the land, even though actually he has and is being compelled to seek a job elsewhere to obtain money with which to pay his tax. In some instances soil erosion has made the land nonproductive, and literally the improvements, consisting of house and barn, are about to topple over into an arroyo.

Speculative values that have been in the past attached to lands are yet fresh in the minds of such landowners. Frequently they themselves paid a big price for the land only a few years ago.

The only answer to this I can offer at this time is to let such rugged individual remain on the land and so starve him into submission to selling his land at a fair price, which the Government is willing to pay. In the meantime, government (society) must suffer practically utter destruction of the soil. But not so simple as this! This same government, or society, cannot tolerate to see these families reduced to such a low standard of living. Through doles and work relief we bolster them up and thus encourage them to hold on a bit longer. Hope is further kindled and the ruggedness asserts itself more strongly than ever in the form of confidence that the old rundown piece of land, gullied and barren, is worth a lot of money. Then, too, it's the old home, farm, ranch, or what not to which the family is strongly attached. This is human nature, and it is only natural they should be that way. So society, like the Savior, must say, "Forgive them, they know not what they do." In the meantime, society must suffer abuse and punishment at the hands of these rugged individuals until they can be made to know what they do.

These things we express as land-use planning are very much opposed to our old ideas of Americanism and the individual rights guaranteed by our Constitution.

There can be no successful land-use planning nor the accomplishment of its purposes except through governmental control of the use made of private lands. This Nation, since the landing of the Pilgrims, has played a one-sided game of put and take. It "took" but has neglected to "put" anything back into

the greatest resource of all, the soil. If the basis of all wealth is the soil, one need only look at the enormous wealth now exemplified in our large cities, with their great skyscrapers, factories, and the many other extravagances of a people economically unbalanced. Why should the soil be robbed of so much of its wealth that we may express our mastery over nature in such a fashion? How much better, it seems now, it would have been had we put at least 50 per cent of that wealth taken from the soil back into it and been satisfied with cities and other artificial work half as large. Why can't men learn or be taught to find a more full and complete satisfaction of their accomplishment incentives in rebuilding and maintaining our natural resources of soil, water, timber, and grass than building great cities, factories and packing houses?

Land-use planning and its application only will save this nation from the fate of the Persians, Chinese and Egyptians. But the road will be rough and traveling mighty slow—because it is contrary to the first law of nature, self-preservation, and contrary to our constitutional rights. Progress can only be made through education, and finally government control. We need expect no more progress in soil and water conservation on the part of the private land-owner than has been obtained in forest conservation, though we have been teaching it for 30 years.

On the National Forests we have many plans which are properly parts of a land-use plan and must be fitted into such a plan. For instance, we have land exchange plans; timber, grazing, and recreation plans. These will have to be coordinated into one land-use plan for the Forest unit and made a part of that larger plan for a zone or some other unit.

C. B. SWIM

GALLATIN

BOZEMAN, MONTANA

Land-use planning, in its present infant stage, looms as a gigantic subject that cannot be but vaguely touched upon or thought out in the very brief time allotted to this article. My past experience and training in land-use planning has been confined largely to individual tracts and isolated, small or localized projects which has rather poorly qualified me for thinking in terms of Land-Use planning, State-wide or National in scope.

It is tremendously difficult, in fact practically impossible, for one group of individuals, such as, for instance, a bureau or department, to effectively conduct a land-use planning program without a careful coordination and co-operation with peoples and institutions concerned. We must consider social life, land economics, farm units, rehabilitation, maximum and minimum acreages for farm settlement, etc.; in fact, a general leveling off from existing conditions. No family should occupy a marginal tract of land the productive acreage of which is insufficient to provide a justifiable income sufficient so that the family can move with social and economic freedom among their fellow beings; nor should any individual control an acreage so large that it amounts to a burden to himself and a hardship to the community. I firmly believe, and the trend of present-day affairs points, that the country is due for a general economic leveling off, that is, the two extremes must be brought more closely to-

gether—the rich and the poor—social inequalities. The wage scale, etc., the stockman with his mighty herds must disappear; likewise, the poor stockman with his few, mangy beasts must also disappear. Land-use planning must have its place in this new-day period of readjustment.

Land-use planning, where done by the Forest Service, must be intimately tied in with agricultural districts where families make their homes. It must tie in with mining and all other industries, and should be coordinated with all related agencies. When the original boundaries of the Forests were established their locations were influenced, to a considerable extent, by adverse public sentiment and the lines usually placed high on timbered mountain slopes where it was considered would not conflict with adjacent local interests. As a result, broad strips of marginal or semi-forested land were left outside. We should now study land-use planning from the outside or settled lowlands and approach the mountainous regions with a careful consideration of economic and physical conditions. The present established Forest should be disregarded insofar as the study is concerned, as well as existing alienations, and the country carefully zoned, agricultural, grazing, mining, forestry, etc. The plan, no doubt, should consider an acquisition program that will eventually place lands falling into the grazing zone into Governmental ownership and control. These lands must then be administered under that department of control that will best supply the needs of communities tributary to same, as well as the nation as a whole.

The present purchase of marginal and submarginal lands under the AAA program is a step in land-use planning. We have on the Gallatin and Absaroka National Forests a project under way at the present time. Although located entirely within the boundaries of the two forests, acquisition is under way, and the land purchased will be dedicated as winter range for the so-called Northern Elk Herd—a National commodity. These lands, when acquired, will be of equal benefit and interest to the man in New York, Chicago, or Los Angeles, as well as to the local community—Livingston, Bozeman, or Montana as a whole. The effect of this purchase, however, does not rest with the elk herd alone. Each settler whose land is purchased, who has maintained a home on the tract for a past indefinite period, finds himself loose-footed and adrift and must find lodgement or be provided for elsewhere. The question remains, "Will this family drift into some town to spend their small purchase price 'nest egg' and become just another burden on the community, or will they invest wisely and become an asset?" Time, of course, will tell. We must, or should, know how many such families our present established communities can absorb. We must know how many large farm holdings can be subdivided and still provide a profitable home. We must know definitely when we turn a man or family out into the cold, unfriendly highway where such people will finally be placed to fit constructively into the scheme of human affairs.

We have another tremendous problem to consider in land-use planning—recreation. Under the old order of living, that phase of life now passing, only a limited few were privileged to enjoy leisure time. Under the new order of things, undoubtedly all classes of people—the laborer, the farmer, the factory man, the tired housewife, and not just a privileged few—will have full Satur-

days within which to relax and enjoy themselves, but will also have means of transportation to do so. These added millions will seek recreation in cool, mountain districts. It may be in the plan of things to provide recreation as a community obligation—who knows? One thing remains a fact: We must lower our standards insofar as hurry and bustle and speed are concerned, and learn to take life more easily. We must learn to relax and to enjoy ourselves. When we do so, recreation will become as much a part of our well-regulated life as overwrought and overworked conditions are at the present time.

HOWARD R. FLINT

REGIONAL OFFICE

MISSOULA, MONTANA

With reference to page 3, paragraph 1, of No. 30:

Actually this is so much more important and difficult a problem than our cost accounting study that there is no proper comparison between the two subjects; the first named is a detail, the latter a fundamental. Doctor Ely's old slogan, "*Under All the Land*," is apropos.

A dangerous feature in the present land-use planning epidemic, it has been endemic for years, is that under strong urge we are going to get all hopped up and formulate, possibly put into effect, reams of half-baked plans based on altogether too little study, thought and experience. We are already nicely started on just such a course. It is almost inevitable that we should be so started if one considers the enormous volume of new work and extra activities that have recently been dumped on the wholly inadequate qualified man-power in R-1. I mention R-1 because I know little about present conditions in other Regions. Thorough, careful study and planning does not come from a man or a group of men continually harassed by more routine work than they have any possibility of really staying on top of and doing in truly craftsman-like manner. In a long-time enterprise, forestry, for example, sound and workable plans will not come from swarms of new or temporary employees who know only that forestry is an immediate means to a payroll.

There is really no need to rush into this on impulse like ants swarming to a breach in the community hill. Land-use planning has been sneaking up on us for years. It is here. It is here to stay, but it is not in any sense a static feature like Lolo Peak, that will be right there every morning in the same old way for centuries. Land-use planning is an evolution. No piece of land is necessarily and irrevocably dedicated to one use forever. Time, not plans, will take care of that. Land-use plans will require something like one of Bergson's definitions of evolution—"the continual elaboration of the ever new." Just as well accept it that way, go at it calmly, methodically, with a forward gaze, but with very few predictions or preconceptions. It is no such haphazard task as building too narrow motorways from no place in particular to the farthest point you can get to from there.

One more suggestion. It may be a good idea for us to confine our efforts to starting and to getting into practice effective plans for the National Forests and co-ordinating them with plans for some of the immediately adjacent lands. It is just possible that there are other organizations in the world almost as well

qualified as we are to plan those parts of the world outside the National Forest boundaries. We have too often displayed an urge for empire that was not well justified by our handling of some that we rule.

H. C. HILTON

REGIONAL OFFICE

DENVER, COLO.

The impression is often secured when reading the various discussions of land-use planning that the Forest Service has been extremely derelict, but in comparison with other governmental departments we have not been so careless after all, considering the thought of the times. Very few individuals have the imagination or forecasting ability to see so far in the future as to plan wisely, except for a limited field of application. It took timber exhaustion to make the State of Michigan see the need of soil surveys; it took loss of taxation to awaken the need of zoning plans for Wisconsin, and it took floods and loss of fertility to awaken the country to the need of erosion control, all of which are incident to the finally defined plan and policy of proper use of land for county, state, and nation.

It is only natural that we in the Forest Service should have a rather narrow view of many things affecting the nation at large. Whether we have really been busy or not (before the CCC, NIRA, etc.), we have thought we were, which amounts to the same thing, and we have not always taken advantage of all opportunities to keep up to date on the things which we did in school in courses in economics, etc. There have been sufficient men interested in the broader aspects of forest administration to guide in considerable measure the thought necessary to do more of a job on the Forests than just administer and protect them. This seems clear from the early work done in land classification, timber management plans, recreational plans, establishment of definite policies concerning the location and class of special uses, the policies established of correlating ranch use with grazing on the Forests, as well as with use of winter desert ranges, the division of ranges between game and domestic stock, the policies in reference to sale of timber, and the attempts made for orderly cutting to sustain a local sawmill, community, or wood-working plant. All of these have in a measure constituted land-use planning. We have in some instances gone even farther than this in master plans for the Forest. Our plans for rounding out Forest boundaries have been another expression of the desire for land-use planning.

We have, however, in spite of ourselves, looked upon the problem in too narrow a light, and these discussions, if they do nothing else, should greatly broaden the viewpoint of Forest officers. In many areas joining the Forests the lands should properly have been reserved for use only by game or limited recreation, as grazing and cultivation has caused erosion which can never be satisfactorily corrected, because the land values will not justify it. It is useless to consider buying up this land by wholesale lots, because much of it is located along important highways and the business and recreational values are high. The Forests must, however, because of their value and use in connection with the industries of the region and their use for recreation, aside from industrial

uses (dude ranches, resorts, etc.), play an important part in the final program of land-use planning in the counties and states which will make the best use possible of all lands. Already in the Rocky Mountain states state planning commissions are becoming permanent organizations as the result of action by state legislatures. Forest officers must expect to broaden their vision and take an active part, if not the lead, in the development of state-wide plans for land-use planning work, working directly with the state and county organizations and with other governmental bureaus, including the Taylor Act administration, AAA, Soil Erosion Science, etc.

A. G. LINDH

MISSOURI PURCHASE UNIT

ROLLA, MISSOURI

The Ozark region of Missouri presents an outstanding example of the need for land-use planning. There is such a complexity of interdependence in the major land uses that growth without a plan is bound to produce topsy-turvy results.

There are three major rural land uses. These are lumbering, crop agriculture, and grazing. Lumbering has exploited the land to almost the lowest point possible. Farming has been carried on with no regard to the soil. There is farming where there should be forests or grazing use. Grazing has been practiced on land that should be devoted solely to forestry.

All three of these uses are necessary to the best permanent good of the region. No one of the three can stand alone. The residents of the comparatively small agricultural communities need the supplemental help of forestry and grazing uses. Forestry needs the labor available in the permanent agricultural communities, and could not economically carry this labor without the supplemental help of the permanent farms.

The fully rounded-out community must develop all three of these uses so that each takes its share of the support of the community life. The forest use will be one of building up the forest values for a number of years, with only a small amount of timber to be harvested. The farming and grazing, to be permanent, must be turned from its downhill course and go through a building-up process.

If we are to establish and develop National Forests in the Missouri Ozarks we must have a complete use plan. We cannot hold the forestry use of land aloof and go forward without a full recognition of the other use problems. We have already purchased a considerable acreage of forest land. We must now recognize that we are buying more than land. We are buying individual social problems and community responsibilities. The percentage of forestry use, figuring on gross returns, is large compared with grazing and crop farming. It follows that the responsibilities assumed in forest land purchase are large. The need for a plan correlating uses and assigning their responsibilities is apparent.

The plan must be fitted together, with each small division soundly based on an inventory of resources. The plan must be made by men with the common

good of the nation in mind rather than the selfish desires of an individual or small political division.

The entire social and economic structure in the Missouri Ozarks is dependent on the use made of its land. The present conditions prove that past land use has been terribly wrong. Decadence, disease, stark poverty and ignorance among the comparatively dense population indicates that socially, as well as economically, the use of the land is at low ebb.

As the Forest Service begins rehabilitating the forests the plan must be carried out to start an upward trend in all uses. Many basic changes will be required. Many people farming the wrong land must be resettled on better areas. Political units too small or unwisely planned will need to be consolidated to lessen the burden of local governments.

DANA PARKINSON

REGIONAL OFFICE

OGDEN, UTAH

If the 1912 land classification were being made today it should exclude from entry land needed for game, recreation, scenic values and other public uses. It should consider the social disadvantages of isolated settlements, the extra cost of schools, roads, extension service, etc. It should consider the effect of increasing crop land on the National welfare; the practicability of success on the land in question as compared to success if the settler were on other available land; and the opportunities for part-time work. Since the financial, physical and mental equipment of the applicant have much to do with success of such a venture, the Government should retain title at least until the entryman has demonstrated that he will conserve the beauty, build improvements that are attractive, as well as convenient and useful, and cultivate with methods that will protect the soil. The extension service should guide him, and possibly help equip him. The Government should hold the right to recall title in case of abuse of land, or abandonment.

In going over the outline giving six subjects, I note that no place is provided for technique of assembling data into a land-use plan. I believe that one of the most difficult problems confronting those engaged in land-use planning is to devise ways of assembling the data either graphically or in the text in such a manner that the picture can be clearly seen and comprehended by a layman.

P. V. WOODHEAD

MEDICINE BOW

LARAMIE, WYOMING

In our early so-called settlement work, under the Act of June 11, 1906, we approached the problem from the standpoint of cover, soil and, of necessity, expediency. Social and economic factors did not come prominently into the picture. If the soil of an individual tract was arable and the area more or less devoid of commercial timber, the applicant had at least an even break in getting the land opened to entry. Subsequently the more formal land classification gave more weight to social and economic aspects. The results of settlement on some of the earlier "listings" had been observed. Proof was at hand that arable

soil did not in itself supply all that was needed to make a home unit. But even with this experience and evidence additional tracts were opened to entry because the trend throughout the country was to get land into private ownership as rapidly as possible. The demand for more land could not be disregarded. The demand came not only from the man who wanted the homestead, but from Governmental agencies in a position to dictate policies.

If the land classification job were being handled today, I doubt if the problem would be approached at all from the standpoint of the physical aspects of small individual tracts. We would not go out into the small mountain valley and dig pits to see how deep the fine, sandy, silt loam might be, or if there were 79 or 81 acres that could be turned under with the plow. Under the land-use planning idea entire Forests would be considered coincident with the social and economic aspects of surrounding regions. Less emphasis would be placed upon the fact that it would be possible to raise a certain amount of hay, vegetables or other crops on a given tract. The emphasis would be placed on proper land use from a broad economic standpoint. Something along this line is apparently what settled the Blank Creek Desert case.

ALVA A. SIMPSON

SHELTERBELT

LINCOLN, NEBRASKA

1. The 1912 land classification was predicated upon the interpretation of the Act of June 11, 1906, that soil, topographic, etc., features being favorable, the economic conditions surrounding the classification would be given little weight. As a result we classified as listable, areas and tracts that were distant from schools, churches, roads, and neighbors, with no thought as to the probability or possibility of establishing and maintaining a permanent home. As late as 1926 the decision as to the listability of a tract of land was weighed in favor of the applicant, and in the instance of the Custer National Forest in Montana, the disintegration of the Ashland Division was prevented, not by a sound land-use policy, but by direct legislation on the part of Congress.

Today we would consider the effect of a classification on communities. We would adverse applications where submarginal conditions were evident, and would consider more definitely the benefit or detriment of the listment to society and to political units. The best indicator of the weakness of our 1912 classification is the large per cent of listments that were abandoned, or were devoted to forms of use at variance with the maintenance of an agricultural home. Many of these uses could have as well been made under our special use regulations. Land classification today would interrelate social, economic, and all factors before a favorable decision would result.

Many of us had a "feeling" that all was not well with our land classification policy, but we lacked the essential information from which to crystallize our "feeling" into a logical argument. Yet land classification was a pioneering project in land-use planning, and as such was valuable in the development of thought and in the accumulation of evidence that our classification was not economically sound. Today we are still pioneering, but our vision is broader and we can see the necessity of correlation of all factors so that people, so-

ciety, political units, as well as the land, bear scrutiny. The individual desire of a citizen for a "free homestead" no longer is the guiding principle in National Forest settlement.

J. V. LEIGHOU

GUNNISON

GUNNISON, COLORADO

Land classification, insofar as I know, is apparently one of the first efforts made in the way of land planning, and, of course, under the circumstances, errors were bound to be made. The same was true in land classification as is true in most cases, that the public benefit is subordinated to the very evident desires of the individual. As the usual thing, public benefits are not very evident though they are present. Public benefits may be to a large number of individuals to a very minor degree, and because these are not individually worth fighting for they are usually subordinated to the intense benefit of some particular individual.

The United States has, in a relatively short time, passed from a pioneer country to a settled country, and it is rather difficult for individuals who moved into the country and settled it to appreciate that conditions have changed to such an extent that there can be any public benefits which would be of more importance than their own individual benefits.

In the vicinity of many of the Forests there are today men who moved into the country when the country was first settled. At that time they adopted certain habits of life which were based entirely on their individual desires, and very little consideration was given to the needs of their neighbors because they lived at such distances that their own individual actions had comparatively little effect on other members of the community. It is very difficult for these individuals to appreciate that conditions have changed, and that now they must take into consideration the effect of their actions on society.

It would seem to me that while the eastern country, or the more settled or older country, is probably in greater need of planning of land use because the errors or lack of plan is more apparent, that the real opportunity for land planning lies in the less settled countries, such as are found in the National Forests of the west. If planning is not resorted to, the newer country will inevitably go through the same stages of development along unplanned lines and make practically the same errors that the older settled country have already made.

In considering the land classification policies of twenty years ago, while the principles outlined gave consideration to public benefits, it was rather difficult, in individual cases, to really visualize what those public benefits might be. It is comparatively easy, however, to see that the land might be plowed and put into crops even though the individual benefits from such action might be somewhat doubtful. Since the public benefits were so vague it was very easy to decide in favor of the applicant, with the result that many areas were opened to entry which clearly should not have been.

It reminds me somewhat of the classification that was being made a few

years ago by the Geological Survey in the case of grazing homestead applications. Here the question of whether a 640-acre tract was timbered or not depended on whether that particular 640-acre tract had salable timber at that time. The market value of the timber in question was weighed against the market value of the forage on the area, with the result that unless the area had marketable timber it was very likely to be classified as grazing land, even though the grazing values were very slight. The mere fact that the area might be almost entirely covered with young growth which would eventually be marketable had no place in the picture.

In regard to marginal land purchases, very frequently a piece of marginal land located within the boundaries of the National Forest has been allowed to increase in value because of the fact that it is surrounded by public land which may be used either free of charge or at a very nominal cost, so that while it is essential that these pieces of land be acquired for proper administration of public property, they are going to have values in excess of their real productive value. There are a number of tracts within the Gunnison National Forest which, if they were surrounded by private lands, would have very little value. However, by virtue of being surrounded by public lands, they are being held at a comparatively high figure.

L. A. BARRETT

REGIONAL OFFICE

SAN FRANCISCO, CALIF.

Under "Suggestions for Discussion," on page 17 of Bulletin 30, mention is made of how the more recent land-use planning point of view might have materially assisted in the land classification work of years gone by.

Three actual Region 5 studies received but scant recognition at the time, although they showed definitely that under the conditions existing it was a mistake to assume that any of the remaining publicly owned lands in those localities were of sufficient value to support an average family from the production of agricultural crops.

No. 1. A well-timbered region in Northern California cut up by several valleys where more or less agriculture is practiced.

Within the Forest were a number of small patches of land sufficiently level to cultivate. These were all covered with from 1 to 4 or 5 June 11 applications. A study of agriculture in that region showed that nearly all of it was confined to 5 mountain valleys. The two best agricultural valleys lay at an elevation of 3,400 feet. The average farm here contained 280 acres. The average farm in the next higher valley, elevation 4,000 feet, contained 480 acres.

The largest agricultural valley lies at an elevation of 5,000 feet. The average farm here had 1,100 acres. The highest valley where crops were raised is 5,500 feet above sea level. Here the average farm had 1,400 acres.

Since there was not a patch of land on the Forest with more than 30 acres that could possibly be cultivated, the study showed conclusively that with the average farm ranging from 280 to 1,400 acres in size, depending on elevation, the June 11 applications were up against a hopeless proposition, and no land

No. 2. A Forest region in Central California where there is a material amount of fruit produced on the lower foothills. Since the soil is practically the same from 1,500 feet elevation up to 5,000 feet, some Forest officers believed we would have to list under the Forest Homestead Act large areas within the National Forest. However, investigation of the records of the Southern Pacific Company and of the fruit-packing firms showed that between elevations of 1,500 feet to 2,000 feet there was only the loss of one fruit crop in 5 years due to frost. Between the 2,000-foot and 2,500-foot levels an average of 2 crops were killed by frost every 5 years. Between 2,500 feet and 3,000 feet 3 crops out of 5 were frosted, and above 3,000 feet fruit farming was so uncertain that no man who knew the facts would undertake it. The result was that no land was listed here, and time has demonstrated that the classification was correct.

No. 3. A largely signed petition was received from a forest in the Coast Range requesting the opening to entry of about one million acres of National Forest land, the reasons for the request being that much of the area was valuable agricultural land, and that hundreds of land-hungry settlers were being deprived of an opportunity to secure a farm and make a living. An investigation of the records shows that within the area proposed for elimination some 378 homesteads had been filed over a period of 50 years, some being June 11 homesteads not as yet patented. An investigation on the ground showed that 72 per cent of the 378 homesteads were either entirely abandoned or only used more or less for summer grazing. Of the 28 per cent occupied, less than half had any appreciable amount of land under cultivation. Since these 378 homesteads embraced the cream of the agricultural land in this entire region, the petition was disapproved and the conditions on the ground recited.

Had investigations and planning of this character been undertaken on all the National Forest lands in Region 5 as early as 1906, it is a certainty that the facts disclosed would have proven without question that practically no land should have been listed in Region 5 under the Forest Homestead Act.

As a matter of fact, many thousands of acres (now largely abandoned) were listed, because little consideration was given to what had happened in the past to land of similar character that had passed into private ownership. In other words, there was little land-planning connected with the land classification.

